

General FAQ's

• The Stars

1. **What is the solar wind?**

A flow of gas (plasma—protons and electrons) which streams from the Sun's atmosphere. Typical solar winds can be 400 kilometres per second.

2. **What is the photosphere of the Sun?**

The visible surface of the Sun.

3. **What is a sunspot?**

An area seen as a dark spot on the photosphere of the Sun. Sunspots are typically 2000 degrees cooler than the surrounding area.

4. **What is a red giant star?**

It has low surface temperature and a diameter that is large relative to the Sun.

5. **What does magnitude mean?**

A measure of the brightness of a celestial body. For historical reasons, bright stars have lower magnitudes. The brightest star in our night sky (Sirius) has a magnitude of -1.46 and the faintest star visible to the unaided eye has a magnitude of 6.

• The Planets

6. **Are all planets round?**

No. The planets that are round are Mercury, Venus and Pluto. *Dwarf planet Pluto*
The other planets have an oblate shape to them. Uranus, Saturn and Jupiter are more oblate than Neptune, Mars and Earth.

7. **If the orbits of Neptune and Pluto intersect, will they ever collide?**

Dwarf planet Pluto
Probably not. Even though the orbits of Pluto and Neptune intersect, gravitational forces prevent them coming closer than a few 100 million kilometres of one another because of the high inclination of Pluto's orbit.

8. **What is the 'morning star' or the 'evening star'?**

It is not a star at all but the planet Venus, often seen just after sunset or just before sunrise.

9. **Will other planets ever collide with the Earth?**

The positions of the planets in our Solar System have been predicted for about the next one billion years and there is no sign that they will ever stray from their current elliptical orbits.

10. **Could life start on another planet in our Solar System?**

We don't know. Of all the environments we know about there are several that look promising: The surface of Titan (Saturn's largest Moon) has an atmosphere that we think resembles what Earth's atmosphere was like before life started. An asteroid from Mars suggested that life may have been present just below the Martian surface but this has not been proven. Liquid water and an internal heat source were recently discovered beneath the icy surface of Jupiter's moon Europa giving scientists another world that might be able to support life.

• The Moon

11. **Where is the terminator on the Moon?**

The dividing line between the illuminated and the non-illuminated part of the Moon.

12. **What is a Mare?**

The direct translation from Latin which means 'sea'. The large circular plains on our Moon are named Mare because years ago they were thought to be seas.

13. **Does any Moon in our Solar System also have a Moon?**

No, although the asteroid Ida has been found to have an orbiting 'moon', a very diminutive asteroid called Dactyl.

14. **Would you see stars in the daytime on the Moon and Mars?**

You would be able to see stars from the Moon because there is no atmosphere to scatter sunlight. On Mars, the atmosphere is much thinner than the Earth, but carries a lot of dust so you may expect a sky about as bright as Earth twilight and you would be able to see some of the very bright stars all the time.

• Miscellaneous

15. **What is a meteorite?**

A fragment of rock that survives the journey through Earth's atmosphere and lands on Earth.

16. **What is a meteor?** (also called 'shooting star' or 'falling star')

It's a bright streak of light in the sky caused by a meteoroid or a small chunk of dust or rock entering the Earth's atmosphere. They are travelling very fast and burn up because of the heat generated as they travel through the atmosphere. Very large, bright ones are called fire-balls and bolides.

17. **What is a comet?**

Comets are small solid objects, often likened to 'dirty snowballs'. They consist mainly of ice with some grains of rock or dust mixed in. This icy object is called the nucleus of the comet. It has an irregular shape and is typically only a few kilometres (~5–50km) across. The famous tail of a comet is formed when the frozen nucleus approaches the Sun. As the ice melts, dust and gas is released, often in sudden jet-like spurts. This material forms an atmosphere (or coma) around the comet that increases the size of the comet enormously.